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Atelectatic Bronchiectasis in Childhood.—Five children (aged 8 to 13 years) are reported in whom triangular shadows were found at the base of either lung, usually the left. The presenting symptoms in every case had been persistent cough dating back to an attack of pneumonia in infancy or early childhood. The cough was accompanied by little or no sputum, particularly no foetid sputum, and there was very little constitutional disturbance. Lipiodol studies revealed a dilatation of the bronchi confined, as a rule, to the lung shadows. The only consistent physical sign was the finding of râles at the affected base. Tuberculin tests were negative. The author feels that the bronchiectasis is secondary to the failure of a lobe to expand following pneumonia and is due to the accumulation of secretions. Similar pictures may occur in tuberculosis or following the aspiration of foreign bodies. Treatment should be directed toward preventing secondary infection and the consequent classical picture of bronchiectasis. Forced breathing exercises should be carried out as early as possible, as in rare cases reëxpansion of the affected lobe has been reported.—*Atelectatic Bronchiectasis in Childhood, R. W. B. Ellis, Arch. Dis. Child., February, 1933, viii, 25.*—(*M. D.*)

Atelectasis, Detelectasis and Apneumatosis.—In order to clarify the confusing terminology used to describe collapse of the lung, the following classification is offered. *Atelectasis* should be used only with reference to congenital incomplete expansion of a lung. If partial atelectasis persists, subsequent infection may lead to bronchiectasis, bronchopneumonia, or cystic lungs. *Detelectasis* implies a collapsed lung which has previously been inflated. There is an actual falling in of a lobe and the term includes a sudden massive collapse or a gradual collapse of a complete lobe. It is emphasized that this condition occurs only in gross pulmonary infection and the explanation of the phenomenon probably lies in the pathology of these infections. *Apneumatosis* is a term used to describe an airless condition of the lung, generally due to bronchial obstruction, in which there is no actual retraction of elastic tissue, so that the visceral and parietal layers of the pleura remain in their normal relationship. It is occasionally seen in fibroid pulmonary tuberculosis. Kyphosis and scoliosis may cause it from kinking of a bronchus.—*Atelectasis, Detelectasis and Apneumatosis, E. Fletcher, Tubercle, October, 1932, xiii, 3.*—(*M. E. P.*)

Chronic Pulmonary Suppuration.—There is a considerable divergence of opinion as to the aetiology and best treatment of pulmonary suppuration. The consideration of suppuration in the respiratory tract divides itself anatomically: sinuses, upper air-passages, trachea, main bronchi, small bronchi, parenchyma and interstitial tissue. The upper air-passages must be considered because they have an important bearing on lesions in the lung, such as bronchitis and bronchopneumonia caused by upper-respiratory-tract infection. The action of pyogenic organisms in the bronchi helps to produce bronchiectasis or bronchiolectasis. Bronchiectasis commences, in some cases, with disuse atrophy and stasis in a bronchus, due to congenital lack of expansion, or to infection. In a different category are the cases commencing as a result of aspiration of infection, foreign body, and stenosis from such

causes as syphilis or new growths. Pulmonary abscesses may be due to septicaemia, postoperative aspiration or emboli, infected foreign bodies, stenosis of bronchi, carcinoma of a bronchus, or unresolved pneumonia. The incidence is much greater in men than in women, and the right lobe is the most frequent site. The X-ray may not always reveal the abscess, but the bronchoscope is essential for diagnosis, orientation and treatment. In the choice of therapy, the aetiology, duration and position of the abscess must be considered. The acute abscesses or those of short duration are much more likely to respond to conservative measures, but drainage is essential for healing. In chronic abscesses, bronchoscopic drainage, artificial pneumothorax, phrenic evulsion and partial thoracoplasty are used with varying success. It is emphasized that the use of the bronchoscope is of great value in the diagnosis of pulmonary suppuration, but in treatment it should be regarded as only ancillary to surgery.—*Chronic Pulmonary Suppuration and Its Treatment by Bronchoscopy and Drainage, A. J. S. Pinchin, Tubercle, September, 1932, xiii, 529.*—(*M. E. P.*)

Lung Abscess.—Putrid lung abscess is the term that should be applied to the ordinary lung abscess, which presents a typical clinical picture and is produced by an anaerobic infection. Nonputrid forms of abscess, as well as abscesses of embolic origin, do occur clinically, but these are infrequent and are to be differentiated from the usual, putrid type. Experimental production of abscess by emboli has led to the erroneous assumption that most lung abscesses in human beings are embolic. The concept of putrid lung abscess developing as a complication of pneumonia is likewise inaccurate; the so called pneumonia was a putrid lung abscess from the start. Lung abscesses usually develop from the aspiration of material containing pathogenic anaerobic bacteria; such factors as upper-respiratory-tract operations, inhalation anaesthesia, and foreign-body aspiration are not the sole predisposing factors, since none of them existed in over one-third of the cases studied. At the site of lodgment in the smaller bronchi of the infected material, an intense necrotizing inflammation of the bronchus and its bronchioles develops, followed by involvement of the parenchyma supplied by these bronchi. The lesion is thus always situated near the lung surface. Rapid destruction of bronchial walls and vessels occurs, leaving a gangrenous abscess, which can enlarge by direct extension or by spill-over into surrounding bronchi. In the latter event a rapidly fatal gangrenous bronchopneumonia can ensue, or a chronic multilocular abscess can develop. Varying degrees of bronchial dilatation about the abscess may result, so that it may be difficult to decide if one is dealing primarily with abscess-formation or with bronchiectasis. In the early stages of development of putrid lung abscess the clinical manifestations usually occur in an orderly sequence. After an incubation period of three or four days, feverishness and chilliness or actual chill develop. These are followed by chest-pain, often at the site where adhesions will later be found. This pain may disappear in a few days. Cough then sets in, to be followed in ten to twelve days after onset by sudden copious expectoration. The sputum is at first invariably foul, but this characteristic may disappear in later stages. Early haemoptysis, of variable extent, always occurs. From this point on, the disease may take one of several courses. The sputum may become progressively foul and early death may result, the abscess may subside, or, as is usually the case, the symptoms decrease for a few weeks, but then recur, with progression into a subacute or chronic abscess. With rare exceptions spontaneous recovery does not occur after the first two or three months. In the subacute phase, clubbing of the fingers and toes sets in, and expectoration, fever and pain recur. If the cavity is closed off expectoration may not be foul. In the chronic stage, there may be no symptoms for long periods except for the expectoration of foul pus, or there may be recurrences of spread of infection, or the anaerobic infection may be burned out, so that foul sputum is no longer present and the manifestations are those of bronchiectasis. In either event, the course of confirmed chronic lung abscess is progressively downhill; death takes place usually within three years and often much earlier. By roentgenographic studies only half of the cases showed the typical appearances of lung abscess. The presence of an abscess-cavity or its accurate location may be impossible to discern from the X-ray pictures because of lack of drainage, or because of the surrounding pneumonitis. In mesially located lesions, one must be dealing either with a disease other than abscess, or an abscess which is situated in the posterior paravertebral region, since abscesses are always peripheral. Bronchoscopy is indicated diagnostically in every subacute or chronic abscess; in those cases without expectoration of foul pus, such pus or a foul odor can be detected at times with the bronchoscope. Bronchography by the use of iodized oil is invaluable in localizing the abscess. Putrid lung abscess is potentially a surgical problem from the onset. Phrenicectomy and artificial pneumothorax

are of no proved value, and the latter carries with it the risk of empyema. In true abscess, bronchoscopic drainage is of no real value in treatment. In the operative treatment, excision of the roof of the abscess and ventilation are to be preferred to such procedures as thoracoplasty or lobectomy. Operation is indicated in acute abscess if there is evidence of spread or if the clinical course points to the unlikelihood of spontaneous cure. The presence of a subacute abscess always indicates operation, unless an acute gangrenous extension is occurring. Chronic abscesses always should be treated by operation, if necessary repeatedly, unless it is irremediable. The site of operation should be through the pleural adhesions that always are present. If no adhesions are found, the chosen site is wrong, as is also the case if the abscess is not found superficially. In a successful operation, expectoration of foul pus ceases promptly, and within a week the wound is healthy and free from odor. Of a group of 20 patients with acute abscess, ten were not operated upon because the clinical course was favorable, one with a fulminating process died, and of nine operated upon eight were cured and one died. Of 8 patients with subacute abscess, two were unoperated upon, of whom one is well the other improving; three of 6 operative cases died and three are well. In 7 patients with subacute abscesses complicated by acute gangrenous extension, all died whether operated upon or not. In the group of 34 patients with chronic abscesses, there were thirteen not operated upon of whom three were improved, four unimproved and six died; of the twenty-one operated upon, twelve are well, two improved and seven dead.—*Putrid Lung Abscess—Its Etiology, Pathology, Clinical Manifestations, Diagnosis and Treatment, H. Neuhof and H. Wessler, J. Thorac. Surg., August, 1932, i, 637.*—(*B. B.*)

Lung Abscess.—Medical treatment of lung abscess is indicated for the first two months of the disease, and about 30 per cent of the patients recover under such treatment alone, provided the abscess ruptures into a bronchus and drains freely. If symptoms, such as chills, fever, foul sputum and progressive weight-loss continue, bronchoscopic or surgical measures should not be delayed. Multiple lung abscesses are not amenable to surgical treatment; and, in some cases of single abscess, drainage can not be attained. In other instances the system is overwhelmed by toxins and operation only hastens the death of the patient. Among the causes of lung abscess are aspiration of pyogenic organisms from diseased teeth or tonsils, septic emboli, and extension from neighboring tissues. About 70 per cent of the cases follow surgical operations, and of this group about 56 per cent follow tonsillectomy. Respiratory infections cause about 25 per cent of the cases, and malignant disease is responsible for 10 per cent. Numerous organisms are implicated in the pathogenesis of the disease, including *Staphylococcus aureus*, streptococcus, *B. coli*, spirochaetes, and the anaerobic *Bacterium melaninogenicum*. The spirochaetes found in pyorrhoea alveolaris and in the crypts of tonsils may be the cause of the offensive odor in lung abscess. The disease starts with violent coughing, chills and high fever. The sputum is often blood-streaked, and at first is scant. In ten or fifteen days rupture into a bronchus occurs and expectoration becomes profuse. In a case of gangrene a foul odor is usually present. Medical treatment includes postural drainage and the use of bacteriophage.—*The Medical Treatment of Abscess of the Lung, C. Georg, Jr., J. Thorac. Surg., August, 1932, i, 650.*—(*B. B.*)

Experimental Lung Abscess.—The few results of ligating the pulmonary artery in human beings for bronchiectasis or lung abscess have been equivocal. In order to determine the fibrosing effect of ligation of the pulmonary artery in dogs, emboli infected with *Staphylococcus aureus* were passed into the circulation by way of the external jugular vein, and the results of subsequent pulmonary-artery ligation were noted. When ligation of the artery was performed on the same day that the embolus was inserted, and the dogs were killed in ten days, large abscesses were found, and in some cases infarction and gangrene, but when the ligation was not done until ten days after embolization and the dogs allowed to live until about the 35th day the abscesses were found healed. In control experiments, it was apparent that without pulmonary-artery ligation abscesses produced by similar embolization would heal equally rapidly. On the other hand, when ligation was done on the same day as embolization haemorrhagic infarction and gangrene were found when the lungs were examined on the tenth day; without ligation necrotic lung abscesses without gangrene or infarction were found at the end of this period. This difference in reaction can be explained by the bronchial circulation, since it has been shown that dilatation of the bronchial arteries occurs early in the presence of lung abscesses; if the pulmonary-artery ligation is performed before this dilatation has occurred gangrene and infarction are apt to be superimposed upon a simple process of abscess-formation.—

The Effect of Pulmonary Artery Ligation on the Healing Time of Experimental Pyogenic Lung Abscesses in Dogs, W. M. Tuttle and C. L. Nicoll, J. Thorac. Surg., October, 1932, ii, 60.—(B. B.)

Fusospirochaetal Disease.—In 4 cases encountered within a three-month period fusiform bacilli and spirochaetes were found in the sputum. Three of the patients had been referred as suspected pulmonary tuberculosis. The administration of arsenical preparations by vein was rewarded by the prompt disappearance of symptoms in 2 patients, and expedited the recovery which was under way in a third, while the fourth was still undergoing treatment. In two of the cases acute symptoms followed the extraction of teeth for caries and pyorrhoea, and in these ether anaesthesia had been employed. The aspiration of infectious material may be assumed. The other two patients also had definite dental lesions.—*Four Cases of Fuso-Spirochaetal Disease of the Lungs, P. Heffernan, Lancet, October 1, 1932, ccxxiii, 734.—(R. D.)*

Aspiration Treatment of Empyema.—This is the second report on this method as used at the Children's Memorial Hospital (Chicago), and covers a total of 94 consecutive cases in children observed over a period of 3 years. Sixty-eight (72 per cent) were cured by aspiration alone. Thirteen were operated on after a period of aspiration. The mortality from all causes was 12.8 per cent. This, of course, is not a lower figure than has been reported in recent years in various series of operated cases. It is also true that the average period of hospitalization in this series was 3 months. However, analysis of individual cases reveals certain advantages of this treatment. In the 75 per cent that can be cured by aspiration alone, the time element is to some extent offset by the unpleasant features of an operation, a scar, the discomfort of large dressings and discharging sinuses, and the psychic trauma of frequent dressings and manipulations, as compared with that of the occasional almost painless aspiration if properly done. In every case aspiration should be performed for a time. If improvement occurs after a few aspirations, as judged by the temperature, toxicity, local progress, and general well-being, this procedure should be continued. In the majority of cases, after some experience, one can commonly tell after a few aspirations whether the child will get well within a reasonable time by this method alone. If not, open operation should be resorted to, except during the first two years of life, when aspiration alone (or some other closed method) is the procedure of choice.—*Aspiration in the Treatment of Empyema in Children, E. T. McEnery and J. Brennemann, Am. J. Dis. Child., October, 1932, xlix, 742.—(M. D.)*

Pulmonary Tuberculosis and Suppuration of Lungs.—A systematic search for evidence of tuberculous disease was made in 81 cases of pulmonary suppuration of various types. Thirteen instances of such association were found, a frequency of 16 per cent. Although it has been widely recognized that any type of pneumonitis may complicate or be complicated by tuberculosis, this study revealed that the most strikingly frequent association is with gangrene (foetid suppuration). Ten of the 13 cases under discussion were of this character, two were simple abscesses, and one a pleural suppuration. In only one case was a tuberculosis diagnosed previous to the pneumonitis. In the other twelve the discovery of the associated tuberculosis was fortuitous. In 7 cases the tuberculosis was diagnosed simultaneously with the nonspecific disease. In three of these only the tuberculous ultravirus could be demonstrated, whereas in the other four a frank tuberculous bronchopneumonia was present. In 5 cases the tuberculosis was diagnosed only subsequently. All of these were fatally progressive bronchopneumonias. It is postulated, therefore, that tuberculosis developing on a severely diseased terrain will be a grave form of the disease, which illustrates the primordial importance of the condition of the terrain on the evolution of tuberculosis. It is concluded that a systematic search for evidence of tuberculous infection, including tests for the specific ultravirus in the sputum, be instituted in every case of pneumonitis, particularly the foetid type. Also, the importance of early surgical intervention in such pulmonary suppurations, if feasible, assumes added significance.—*Suppurations pulmonaires et tuberculose associée, E. Sergent, R. Kourilsky and Couve, Rev. d. l. Tuberc., July, 1932, xiii, 742.—(A. E. M.)*

Stenosis of Superior Vena Cava.—A case of tuberculosis of the tracheobronchial lymph nodes, causing superior caval stenosis is reported. The patient was a white male, aged 42, who complained of dizziness, dyspnoea, orthopnoea, swelling of the face and neck, and sleepiness. The clinical course was that of a chronic, rather slowly developing stenosis of the superior vena cava with terminal, rather acute obstruction. At autopsy, a cartilaginous, rather poorly defined mediastinal mass was found adherent to the lung, and encircling the superior vena

cava about 4 cm. above the right auricle. When the vessel was opened, its lumen in this region was demonstrated to be 2 mm. in diameter, the wall was thickened to 7 mm. by dense cartilaginous connective tissue, and the centre of the encircling mass was made up of cheesy, necrotic material of the shape and appearance of a broken-down lymph node. The microscopical diagnosis of chronic fibrocaseous tuberculosis of a mediastinal lymph node was made.—*Stenosis of the Superior Vena Cava Due to Mediastinal Tuberculosis, G. Milles, Arch. Int. Med., November, 1932, l, 759.*—(*W. I. W.*)

Pulmonary Arteriosclerosis.—This condition has been diagnosed clinically only when the right-sided cardiac hypertrophy has reached a stage of imbalance, and decompensation has occurred. If there is little or no evidence of congestive failure at the base of the lungs when enlargement of the liver, ascites, and oedema are present the diagnosis of primary pulmonary sclerosis can be established. A diagnosis at an earlier stage may be made on the basis of the following triad of symptoms: (1) palpable pulsation in the intercostal spaces; (2) pulmonary souffle heard all over the chest; (3) the dance of the diaphragm, a fluoroscopic finding which consists in a down and up movement of the diaphragm synchronously with systole, and superimposed on its respiratory movements. This symptom-complex was worked out in a case of mitral stenosis. Two cases were diagnosed on the basis of physical signs and a fluoroscopic confirmation secured. Two other cases were subsequently noted by the radiologist in which the clinician was able to confirm the diagnosis.—*The Clinical Diagnosis of Pulmonary Arteriosclerosis, H. L. Ulrich, Ann. Int. Med., November, 1932, vi, 632.*—(*R. D.*)

Pulmonary Varix.—A woman of 47 died of haemorrhage into the left pleural sac. Eighteen months prior to this, an X-ray had shown an oval opaque area just above the aortic arch and an effusion at the left base. The blood-pressure was 210 systolic and 130 diastolic. About 600 cc. of bloody fluid was aspirated and found to contain no organisms. At this time a diagnosis of a malignant growth in the left lung was made. An X-ray just before the sudden fatal haemorrhage showed an increase in the opaque area in the left lung field and enlargement of the heart. At autopsy a cyst-like structure, 5 cm. in diameter, was found on the medial surface of the upper lobe, and in the wall of this a small ragged tear was noticed. The cyst was lined with smooth white tissue similar to the lining of a vein, and there was a direct communication with a blood-vessel, 1 cm. in diameter. This vessel was demonstrated to be a pulmonary vein. Microscopical examination showed that the wall of the cyst-like structure was composed of elements representing vein wall and pleura. The hypertension present probably contributed to the rupture. A congenital anomaly of the left pulmonary vein seems to be the most probable explanation of this rare condition. Only two other cases of pulmonary varix have been reported.—*Pulmonary Varix with Spontaneous Rupture and Death, G. H. Klinck and H. D. Hunt, Arch. Path., February, 1933, xv, 227.*—(*R. D.*)

Actinomycosis of Thorax.—In a case of actinomycosis, involving the lung, pleura, chest-wall and breast, cure was obtained by radical surgical treatment, four operations having been performed. (It is noteworthy that an appended footnote states that a recurrent lesion was found seven months after the last operation, posterior to the old incisions.) A general discussion of actinomycosis is given, including modes of invasion, pathology, symptoms, diagnosis, differential diagnosis, prognosis, and treatment. The cases of actinomycosis of the lungs reported cured in the literature are tabulated. The use of iodides and of irradiation has tended to minimize the importance of the chief therapeutic measure in this disease, that is, surgery. An extensive bibliography is appended.—*Actinomycosis of the Thorax with Report of a Case Successfully Operated Upon, O. H. Wangenstein, J. Thorac. Surg., August, 1932, i, 612.*—(*B. B.*)

Mediastinal Foetal Parasite.—A large tumor removed from the anterior mediastinum of a seventeen-year-old girl, who had had mild chest pain for four years, proved on histological examination to contain adult and embryonic tissues derived from all three layers of the blastoderm. Included in the numerous tissues found was some apparently normal pancreas, containing islands of Langerhans; this finding in such tumors has not been previously recorded. The tumor was removed by an anterior approach, and its size necessitated splitting of the sternum. Part of the tumor was adherent to the aorta. Because of the high degree of organoid structure of the various tissues, the author believes the term "foetal parasite" applicable.—*Anterior Mediastinal Foetal Parasite; Its Surgical Removal: Report of a Case, S. W. Harrington, J. Thorac. Surg., August, 1932, i, 663.*—(*B. B.*)

Hydropneumothorax from Perforated Gastric Ulcer.—A married woman of 47

years first noticed a slight cough and frothy expectoration three years before her death. She definitely lost weight during her last 2 years. Frequently, over the same period, she would vomit during her meal. She also complained of flatulence and occasional abdominal pain. Two or three months before death she first complained of recurring pain over the left, posterior side of the chest which radiated to the left shoulder and to the left side of the neck. Six days previous to her admission to Heathfield Sanatorium, she had such an attack. Two days later she carried out her ordinary duties, but in the evening became violently sick and vomited. The vomitus consisted only of glairy fluid. Retching was accompanied by a pain on the left side which was pleuritic in character. Two days later dulness was demonstrated at the left base. The following day fluid was removed. On the day of her admission she had sudden, acute pain in the chest accompanied by severe dyspnoea. Pneumothorax was confirmed by the escape of air through a needle introduced into the chest. On admission the patient presented the symptoms of acute heart-failure and shock, and died in a few hours. When the chest was opened at autopsy the heart and mediastinum were found markedly displaced to the right. The left lung was collapsed in the upper part of the thoracic cavity. The remainder of the left thoracic cavity was occupied by the stomach, spleen, and some free fluid which was similar in appearance to that found in the stomach. On the posterior part of the stomach wall near the gastroöesophageal junction was a perforated ulcer. The spleen was behind the stomach close to the posterior margin of a hernial opening in the diaphragm. The hernial opening occupied a position in the centre of the left leaflet of the diaphragmatic tendon. Portions of the great omentum and gastrosplenic ligament adhered to its margin. At the hernial opening the pylorus came into contact with the cardiac end of the stomach, and by traction on the former the stomach could be partially returned to the abdominal cavity. The tail of the pancreas lay to the left of the hernial opening, and in close relation to the spleen, but separated from it by an invaginated portion of the diaphragm. A stone the size of a large pea was found in the gall-bladder.—*An Unusual Case of Hydropneumothorax, J. Grant and M. Scott, Brit. M. J., December 3, 1932, no. 3752, 1011.*—(*T. O. R.*)

Pneumonoconiosis.—Attention is called to the fact that this condition results from the use of emery and other abrasives not included in the compensation schedules (British). Three patients dying from tuberculosis showed lesions indistinguishable from silicosis, and in 3 other patients pneumonoconiosis resulting from emery dust was associated with fatal tuberculosis. It is suggested that the worker should be more adequately protected in his occupation and that the compensation schedules should be modified.—*Pneumonoconiosis, J. R. Todhunter and G. B. Dixon, Lancet, November 19, 1932, ccxxiii, 1123.*—(*R. D.*)

Acute Pneumonoconiosis Due to Scouring Powder.—Six case-reports are made of pneumonoconiosis of early development after comparatively short exposure, with slight clinical and roentgenological evidences of the disease and with a rapidly fatal course. The patients were employed in an industry manufacturing scouring powder for domestic use. The ages varied from 31 to 70, the period of exposure to dust varying from 10 to 16 months in 5 cases, and 27 months in the sixth. In 4 cases symptoms started from 9 to 24 months after the beginning of the exposure, and only one of the 6 patients remains alive, death having occurred in 5 instances in periods of 14, 21, 33, 50 and 84 months after the employment and subsequent exposure began. A sample of the scouring powder was examined, the solid particles of quartz being mostly 1 micron in diameter. Another sample was found to contain soap 9 per cent, water-soluble sodium carbonate 0.5 per cent, abrasive material 90.44 per cent.—*Pneumonoconiosis: an Unusually Acute Form, E. S. Kilgore, J. Am. M. Ass., October 22, 1932, xcix, 1414.*—(*G. L. L.*)

Effect of Cement Dust upon Workers.—The purpose of this study was to determine, in terms of physical condition and disabling sickness, the effects upon workers exposed to known quantities of dusts. A plant was selected which appeared to be dusty enough to afford observation of the effect upon health of exposure to large amounts of calcium dusts. Five hundred and seventy workers were observed for a period of nearly 3 years, and the greater number of workers underwent two general physical examinations. Roentgen-ray films were taken of the chests of employees in different occupations of the industry. In 1928 the cement industry employed about 42,000 men in about 150 manufacturing plants, representing an investment of more than $500,000,000. The greatest concentration of dust particles under 10 micra was 92 million particles per cubic foot of air. Other dusty locations showed counts which ranged from 22 to 63 million particles per cubic foot of air. Variations in the dust count were found to depend to a great extent

upon the direction and velocity of the wind and other atmospheric conditions. Chemical analysis showed that lime constituted about 62 per cent of cement and silica about 22 per cent. Alumina, iron oxide, magnesia, and sulphur trioxide are the other more important constituents of cement. Petrographic analysis showed that the proportion of free silica (quartz) varied from 6.5 per cent in the crusher-houses, raw-mill, and stone-house to about 1 per cent in the finished cement. The frequency of disability on account of respiratory diseases among the cement workers was twice as great as the average respiratory rate among employees of eleven manufacturing plants in relatively nondusty industries. The highest rate for all respiratory diseases in any of these establishments was 30 per cent below the rate of the cement workers. Diseases of the skin gave a high rate of disability, and furunculosis (boils) was the cause of 70 per cent of the absences which were due to skin diseases. The highest incidence of rheumatism occurred in the outdoor workers and there was a seasonal variation of the disease. Conjunctivitis was the most frequent disability of the eyes. The men employed in the finishing, bagging and packing departments had a rate almost twice as high as for those in the other departments for gastrointestinal disturbances. There was a marked seasonal variation for this condition. There was a seasonal variation in respiratory diseases, which would be expected; the peak was reached in February. The respiratory rate varied more in accordance with general physical condition than with age. Of the 570 workers examined, 21 (3.7 per cent) were diagnosed as having either positive or suspected pulmonary tuberculosis. In only 2 cases, however, was the disease active at the time of the first series of special chest examinations, and neither appeared to progress as a result of exposure to dusts. The history of both cases indicated that the disease had developed before their work in the cement industry. One of them gave a history of infection lasting many years, of chronic fibroid type, and he died suddenly about a year after cessation of the period of observation. The other became a quiescent case while working and during the progress of this study. The other cases, excepting the suspects on whom it was impossible to make a positive diagnosis of tuberculosis, seemed to have developed and healed their tuberculous lesions prior to exposure to cement dust, and there was no evidence that their lesions were reactivated during the period of their dust exposure. The extent of generalized fibrosis of the lungs among these workers was not sufficient to warrant a diagnosis of pneumonoconiosis. The roentgen-ray films of all the cement workers contained evidence of more calcifications than those in the series made on granite cutters.—*The Effect of Cement Dust Upon Workers, A. E. Russell, Am. J. Med. Sc., March, 1933, clxxxv, 330.*—(*W. I. W.*)

Pneumonosilicosis and Amyloidosis.—This case is reported because of the unusual coincidence of the two lesions. A man of 49, who was a farmer, had worked in a granite quarry intermittently for 21 years. He had suffered no disability prior to October, 1931, when he sustained a severe contusion which required hospitalization. He then began to suffer from diarrhoea, weakness and weight-loss. He died in March, 1932. At autopsy the lungs showed marked fibrosis and heavy deposits of gritty material, but no evidence of chronic infection. The spleen and the kidneys showed amyloid disease. Amyloidosis was absent elsewhere. Death was due to the renal insufficiency caused by amyloid disease.—*Pneumonosilicosis and Amyloidosis, Report of a Case of Asymptomatic Pulmonary Silicosis and Amyloid Kidney; Death from Uraemia, J. B. Carey, Ann. Int. Med., February, 1933, vi, 1106.*—(*R. D.*)

Acute Silicosis.—Cases of an acute form of silicosis in workers handling siliceous soap-powders have been met. Bragg has shown that in nature silicon is invariably associated with 4 oxygen atoms, forming a regular skeletal tetrahedron, with a silicon atom in the centre and an oxygen atom at each of the four corners. Because the electrovalency of these oxygen atoms is incompletely satisfied, the whole silicon-oxygen "complex" is chemically very active. "Silica" is built up of these tetrahedra, packed in three dimensions in such a manner that the oxygen atoms are all shared by adjoining tetrahedra so that the electrovalency becomes nil. The difference between various silica compounds is a difference in the "packing" of the tetrahedra. Clay is chemically inert because the tetrahedra are joined in double-plate formation. On the other hand, when a crystal of quartz is converted into powder, apices or corners of tetrahedra will be left sticking out at the broken surfaces with unsatisfied oxygen atoms, in which case the powder at the time of its formation will be chemically active at its newly-fractured surfaces.—*Acute Silicosis, P. Heffernan, Tubercle, December, 1932, xiv, 109.*—(*T. O. R.*)

Silico-Anthracosis.—The present conception of anthracosis is essentially the same as that held in 1837. There was a long period when inaccurate deductions, loose

definition and complacency led to the belief that the pigment in lungs was merely altered haemoglobin. Later it was contended that anthracosis was not caused by inhalation but was brought about through the intestinal route. The present era is one for team-work among the workers in pneumonoconiosis. It has been shown that serious anthracosis does not exist unless there is impairment of the lymph drainage by the action of silica. How the silica acts is not clear. It may preserve the phagocytes, but probably destroys them and is left in the tissues. Because silica is necessary for the production of anthracosis, the term silico-anthracosis is the correct one. Suppression of hard-stone dust is required, as a preventive measure, in soft-coal mining, as well as in other recognized industries, because there is enough silica present in soft-coal dust to produce anthracosis. One such case, with the autopsy findings, microscopical examinations and chemical analyses, is cited briefly as an example. Particles of silica may be much larger than is popularly believed. In the cited case they varied from 10 to 80 micra in length. A plea is made for the closer coöperation in the study of pneumonoconiosis between the clinician, radiologist, pathologist and chemist.—*Silico-Anthracosis, W. E. Cooke, J. State Med., December, 1932, xl, 702.*—(*J. F. B.*)

Rupture of Anthracotic Lymph Nodes into Bronchus.—*Case report:* A woman, 66 years of age, complained of cough with bloody sputum for several months. When first seen she was in fair general health, but about a month later she developed progressive anaemia, slight elevation of temperature, bilateral haemorrhagic exudate of the pleura, dyspnoea and rapid loss of weight. At this time, bronchography showed a tumor mass in the left main bronchus with complete stenosis. Roentgenologically, the lesion suggested the rupture of a diseased lymph node into the bronchus. The sputum did not contain any tubercle bacilli, yet showed occasional elastic fibres. The autopsy disclosed indurated anthracotic lymph nodes rupturing into the main bronchus. In addition, there was far-advanced bronchiectasis in both lower lobes. Since the diagnosis of rupture into the bronchus was made during life, it remained only to discuss the differential diagnosis of the causative disease. Similar clinical and roentgenological pictures may be produced by Hodgkin's disease, malignant tumors, syphilis and tuberculosis. —*Klinische und röntgenologische Erscheinungen bei der Perforation anthrakotisch indurierter Lymphknoten in den Bronchus, A. Beutel and F. Pór, Beitr. z. Klin. d. Tuberk., December, 1932, lxxxi, 659.*—(*M. P.*)

Photomicrographs of Asbestosis Lung.—Photomicrographs are reproduced which were taken on infrared plates (Ilford Laboratories), using "pointolite" lamp for illumination and the Ilford infrared filter. A one-twelfth-inch oil-immersion lens was used in all cases. The infrared plate seems to pick out certain structures and ignore others. How far the differences of detail in the infrared and fine-grain ordinary plate are due to alterations of focus with infrared is impossible to state, but the method opens up possibilities in the photomicroscopy of dense structures.—*Infra-Red Photomicrographs of the Asbestosis Lung, S. R. Gloyne, Tubercle, February, 1933, xiv, 208.*—(*T. O. R.*)

Silicosis and Tuberculosis.—Seventeen cases of silicosis or silicosis and tuberculosis, 3.4 per cent of the total, were found among 500 male patients admitted consecutively to the tuberculosis wards of the Cook County Hospital in Chicago. Fifteen of these had silicosis and tuberculosis. In two a definite diagnosis of tuberculosis could not be established. The condition was more frequent among the older patients. It was found in no patients under 30, in 3 per cent of those between 30 and 40, in 8 per cent of those between 40 and 50, in 5 per cent of those between 50 and 60, and in 6 per cent of those over 60. About 75 per cent of the exposures occurred in mining, principally in the coal mines of Pennsylvania and West Virginia and in the metal mines of the West. In all save 4 cases there was a free interval between the cessation of exposure and the appearance of symptoms. The average interval was 10.75 years. The low and high limits were four and eighteen years, respectively.—*Silicosis in a Tuberculosis Hospital, J. R. Head and S. H. Rosenblum, J. Am. M. Ass., September 10, 1932, xcix, 915.*—(*G. L. L.*)

Diaphragmatic Hernia.—*Case report:* A white female, aged sixty-four, complained of vertigo, weakness, palpitation of the heart on the least exertion, and shortness of breath of four weeks' duration. For many years she had sour eructations periodically, associated with heartburn, and occasional pain referred to the region of the lower sternum, especially after meals. The patient was very pale, though she appeared to be well preserved, without any evidence of loss of weight. Examination of her blood showed haemoglobin 25 per cent, red blood cells 2,150,000, with marked polychromatophilia, anisocytosis, poikilocytosis, macrocytes and microcytes. Serial X-ray studies of the gastrointestinal tract, following the ingestion of a barium meal, revealed about one-third of the upper portion of the stomach to be herniated

through the oesophageal orifice into the thoracic cavity. The heart was displaced upward and to the left by the herniated shadow. The oesophagus appeared normal and of the short type. The diagnosis was diaphragmatic hernia with gastric bleeding. Diaphragmatic hernia is a roentgenological problem and must be differentiated from (1) eventration of the diaphragm, (2) hour-glass stomach and (3) oesophageal diverticula.—*Diaphragmatic Hernia with Severe Anemia, M. Weitzen, Am. J. Roentgenol. & Rad. Ther., December, 1932, xxviii, 808.*—(*W. I. W.*)

Diaphragmatic Hernia in Child.—*Case Report:* A colored girl, aged six, was admitted to the sanatorium with a diagnosis of pleurisy with effusion in the left chest. This impression was based on the roentgenological appearance, the tuberculin test and the history of close contact with an open case of tuberculosis. There were no symptoms or physical signs of any abnormality in the chest or abdomen. The routine check-up roentgenogram presented an entirely new picture, which suggested the possibility of a spontaneous pneumothorax. A needle was inserted into the pleural space, and it was found that the pressure was negative and that no air was present. At this time about 100 cc. of air was introduced into the pleural space. Films following the introduction of air into the pleural space revealed a high, perfectly smooth and rounded diaphragm, with a large amount of gas in the stomach. The roentgenogram suggested an abnormality of the diaphragm which allowed the stomach to migrate into the left chest. This supposition was proved by means of a barium meal, which located the position of the stomach and part of the intestines in the left chest.—*Diaphragmatic Hernia in a Child: Report of a Case, J. P. Nalbant, Am. J. Roentgenol. & Rad. Ther., November, 1932, xxviii, 634.*—(*W. I. W.*)

Subdiaphragmatic Infections.—Most of the subdiaphragmatic infections are derived from the intraperitoneal infections resulting from ruptured peptic ulcer or from acute appendicitis. The infecting organism is usually a streptococcus or *B. coli*. Less commonly, subdiaphragmatic infections result from a perinephritic abscess or from a retroperitoneal appendix which is acutely inflamed. The probability of extension of such infections to the upper surface of the diaphragm varies directly with the area of subdiaphragmatic involvement. The diaphragm is supplied by a rich network of lymphatics, which drain into lymph nodes lying on the diaphragm under the pleura. A sterile pleural effusion is a not infrequent occurrence in the early stages of subdiaphragmatic infection; at times the fluid formed contains organisms. When drainage of the subphrenic infection is obtained the pleural effusion may quickly disappear, even though viable organisms are present; on the other hand, empyema may result. A plastic pleuritis often accompanies subphrenic infections, and, in these, localized, often loculated, empyemata may arise. The empyema may not develop until drainage of the subphrenic infection has allowed the diaphragm to descend, thus causing pull on the pleural exudate. Pneumonitis, at times sterile, is frequent; it may be secondary to empyema. Perforations through the diaphragm may occur, and various fistulae may result between the gastrointestinal tract and the bronchi. Even pyopneumothorax may be formed if the infection arises from rupture of a hollow viscus. The secondary thoracic changes may be the first clue to the presence of a subphrenic infection; when the latter is not suspected, the patient may be erroneously treated for pulmonary tuberculosis, bronchiectasis or primary empyema. Many of the chest complications will disappear following drainage of the subphrenic infection. When gross infection is present above and below the diaphargm, each must be drained separately, as a general rule; occasionally when there is a gross defect in the diaphragm, drainage of one area may suffice. In 31 cases of intraperitoneal subphrenic infection thoracic complications occurred in 23; and, of these, gross perforation of the diaphragm occurred in 65 per cent. Of the perinephritic type chest complications occurred in only 8 of 25 cases, and diaphragm perforation in 2 of these. Empyema is the most common of these complications.—*The Thoracic Complications of Subdiaphragmatic Infections, H. L. Beye, J. Thorac. Surg., August, 1932, i, 655.*—(*B. B.*)

Tuberculous Meckel's Diverticulitis.—A man, 30 years of age, complained of marked weakness and vague intestinal symptoms of two years' duration. Four months before admission he had passed bright blood per rectum and there had been subsequent tarry stools. The general nutrition was good. There were no symptoms of pulmonary disturbance, and examination of the chest gave no indication of an active lesion of the lungs. There was tenderness of the right side of the abdomen. An X-ray showed a constriction of the colon near the hepatic flexure. The preoperative diagnosis was neoplasm. An annular constriction was found at the hepatic flexure of the colon, but there was also an oedematous mass in the ileocaecal

region, and the proximal small intestines were dilated. An ileostomy was performed, but the patient died. Postmortem examination of the abdomen showed only tuberculous lesions of the ileum and the hepatic flexure, and a diverticulum of the ileum, the wall of which showed numerous tuberculous ulcers. One of these had perforated and caused peritonitis. Intestinal obstruction involving the lower ileum was present and was due to an acute flexion about a point at which the ulcerated intestine was adherent to the abdominal wall. This is the ninth case of tuberculosis in Meckel's diverticulum to be reported.—*Tuberculosis of Meckel's Diverticulum, P. Michael, Arch. Surg., December, 1932, xxv, 1152.*—(*R D.*)

Chylous Effusions.—*Case report:* A woman, aged 32 years, had for many years suffered of nonspecific pulmonary infections. At age 29, she had an influenzal bronchopneumonia, followed by right-sided exudative pleuritis, and developing into a sterile empyema. During the next year a mixed infection occurred, but the patient recovered. The pleuritis healed, with extensive fibrosis of the pleura, which extended slowly into the pulmonary tissue. There was a continuous eosinophilic catarrh. After another year, acute pleuritis occurred on the left side, which also healed with massive and progressive fibrosis. At necropsy it was found that the pulmonary fibrosis had progressed to a sclerosing of the pulmonary veins with marked congestion in the lesser circulation. The patient had died with the signs and symptoms of cardiac insufficiency, increased by a fixed diaphragm, obliteration of the pulmonary lymphatic circulation and a marked decrease of respiratory expansion. All these factors together explain the findings of a chylous effusion in both pleural cavities, in the peritoneal cavity, and in the pericardium without obstruction of the thoracic duct.—*Chylothorax duplex, Chylopericard und Ascites chylosus bei einem Fall von fibröser Pleuritis und ausgedehnter Fibrose beider Lungen, P. Steiner, Beitr. z. Klin. d. Tuberk., December, 1932, lxxxi, 757.*—(*M. P.*)

Intrathoracic New Growths.—For a complete investigation of a patient in which the presence of an intrathoracic tumor is suspected, the clinical history, physical and radiological examination, the use of lipiodol and the bronchoscope are important. Benign tumors, such as chondromata, fibromata, teratomata, dermoids and lipomata may be found in the parenchyma of the lung, in the pleura, or within the mediastinum. Among the malignant neoplasms, sarcomata and endotheliomata are found, and within the past fifteen years there has been a remarkable increase of intrathoracic carcinoma. The most common site of primary carcinoma is in the bronchus, a short distance below the bifurcation. Among the early signs of intrathoracic neoplasms are haemoptysis, pleural effusion, localized infections, bronchitis with dyspnoea and pressure symptoms. Implantation of radon seeds has proved effective in the treatment of some bronchial carcinomata.—*Observations on Intrathoracic New Growths and the Value of Bronchoscopy in Diagnosis and Treatment, M. Davidson, Brit. M. J., October 1, 1932, 3743, 617.*—(*M. E. P.*)

Metastatic Cancer of Lung.—Among the primary carcinomata which metastasize to the lungs are those of the thyroid, adrenals, prostate, testicle, breast, and, less frequently, those of the stomach, oesophagus and cervix. The clinical signs of metastatic pulmonary carcinoma are usually meagre and indefinite. Pain, fever, cough, haemoptysis and dyspnoea may be present in varying degree. The physical signs are extremely variable and it is necessary to have roentgenograms for diagnosis. The classification of metastases from a radiological standpoint follows closely that of the pathological classification, namely: *1:* Metastases to the tracheobronchial lymph nodes; *2:* Parenchymal, which includes the nodular, miliary, infiltrative and massive types; *3:* Pleural. It is important to know of the existence of pulmonary metastases. In their presence needless major operations may be contraindicated or combinations of surgical procedures with radiation may be employed, and in otherwise hopeless cases life may be prolonged and relieved of much of its suffering. Brief reports are given of 5 cases, which showed pulmonary metastases, four secondary to carcinoma of the breast and one secondary to carcinoma of the cervix.—*Metastatic Pulmonary Carcinoma, R. C. Pendergrass, Am. J. Surg., September, 1932, xvii, 422.*—(*J. F. B.*)

Superior Pulmonary Sulcus Tumor.—Seven case-reports are made of a peculiar neoplastic entity found in the upper portion of the pulmonary sulcus of the thorax to which the name of "superior pulmonary sulcus tumor" has been given because this term implies its approximate location and a lack of origin from the lung, pleura, ribs or mediastinum, as well as a lack of more accurate knowledge of its histopathology. Prominent among the clinical phenomena were pain around the shoulder and down the inner side of the arm, and often the ulnar side of the forearm, loss of power and wasting

of the muscles of the hand, Horner's syndrome and signs mainly of dulness in the apex of the chest. The roentgenographic appearances were a comparatively small and circumbscribed shadow in the apex due to lung displacement, and destruction of the posterior portions of one or more ribs and the adjacent articular and transverse processes and possibly a little of the sides of the bodies of one or more vertebrae. There was a striking lack of intrathoracic metastasis. Practically all these characteristics are essential for the diagnosis of the lesion. The shoulder pain was mostly posterior and high in the axilla, and sometimes but not always preceded the extension down the inner side of the arm and the ulnar aspect of the forearm. Wasting or weakness of the hand was recorded in three cases. Horner's syndrome was noted in every case and is an essential manifestation. It was variable as to the time of onset. In two cases it was noted two months after the onset of pain, and in one case it became evident nine months after the patient was first seen. The apical shadow was known to precede any bone involvement in three cases. The number of ribs involved varied from one to three, always the first, second or third. Destruction sometimes began in the first and sometimes in the second. The vertebrae were involved in five of the seven cases. Five of the seven patients were males. Both females gave a history of previous uterine carcinoma. The left side was involved in 4 cases and the right in three. Because of the comparative rarity of this tumor, those who are not entirely familiar with it are apt to confuse it with other conditions which present only portions of the diagnostic complex. On the other hand, the condition is often overlooked because of incomplete roentgenological studies, especially in examining only the shoulder for causes of shoulder pains. The tumor is evidently epithelial in its histopathology, but its exact origin is uncertain. It seems likely that it may arise from some embryonal *rest.—Superior Pulmonary Sulcus Tumor: Tumor Characterized by Pain, Horner's Syndrome, Destruction of Bone and Atrophy of Hand Muscles, H. K. Pancoast, J. Am. M. Ass., October 22, 1932, xcix, 1391.—(G. L. L.)*

Tracheal and Bronchial Tumors.—Many benign growths of the tracheobronchial tree are encountered bronchoscopically. These include specific granulomata of tuberculous, syphilitic or mycotic aetiology, and others of inflammatory origin not classed histologically as true neoplasms. The most common of all growths encountered bronchoscopically is a tumor-like formation of inflammatory hyperplasia. The border-line between benign true neoplasms and inflammatory hyperplasia is often indistinct histologically. Clinically, the seriousness of the lesion depends more on the degree and the region of the obstruction it causes than on the histology of the growth. A papilloma at the bifurcation may kill the patient by asphyxia, and a tumor-like inflammatory hyperplasia in the bronchus may produce, in the tributary portion of the lung, atelectasis, drowned lung, pulmonary abscess, bronchiectasis and empyema or all of these in succession. The only way an early diagnosis of endobronchial growth can be made positively is by bronchoscopy, and the only way to determine on the living patient that an endobronchial growth is benign is by histological examination of a bronchoscopically removed specimen, which is a simple and safe procedure in trained hands. Reexamination within a few weeks or months is indicated after removal of a benign growth from a bronchus just as in the case of removal of similar growths elsewhere in the body.—*Benign Tumors of the Trachea and Bronchi: with Especial Reference to Tumor-like Formations of Inflammatory Origin, C. Jackson and C. L. Jackson, J. Am. M. Ass., November 19, 1932, xcix, 1747.—(G. L. L.)*

Polypous Carcinoma of Bronchus.—Polypous carcinoma of the bronchus is extremely rare, 9 cases only having been described, one of which has been operated on and reported by Burrell. The prognosis seems to be better than is generally thought because in seven of the known cases no metastases were present and the growth appeared to be slow. In view of the operability of a bronchial carcinomatous polyp, which should be recognized in time by bronchoscopy a case is reported and illustrated with microphotograms. A man, 26 years of age, was admitted with severe haemorrhages and died the following day. On autopsy the left lower lobe was found atelectatic, and a tumor mass, which obstructed the lumen and originated from the wall of the lower main bronchus, was dissected and proved to be a carcinomatous polyp. Since no metastases were found in the hilar lymph nodes or elsewhere, removal of the tumor by bronchoscopic methods would probably have saved the patient's life.—*Ueber das polypöse Bronchialcarcinom und seine Operabilität, H. Adler, Klin. Wchnschr., October 15, 1932, xvii, 1755.—(K. F.)*

Congenital Cyst of Lung.—A number of cases of congenital cyst of the lung have been reported, and among these certain features stand out rather prominently. In

the cases in which the cysts are large, death often occurs *in utero*, during infancy, or at best usually before the age of twenty-five years. In those in which the cysts are not large the average age attained is fifty-five years, although death may occur in infancy from the rupture of a small cyst with resulting pneumothorax. The condition may involve only one or both lungs, or a whole lobe or a part of one lobe, or it may spring from the parietal pleura entirely unassociated with the pulmonary tissue. There may or may not be a demonstrable connection with the bronchial tree. Congenital cysts generally come to autopsy unrecognized or undiagnosed. The following case is presented: A white woman, aged 54, entered Jefferson Hospital complaining of weakness, loss of weight, cough, heart palpitation, precordial pain, dyspnoea and syncope. Until three years ago, she had always been strong and healthy although during her entire life she had coughed and expectorated moderately. The physical signs on chest examination indicated patchy consolidation and cavity-formation on both sides. A sound identical with a pleural friction rub was heard over the entire chest. There were no tubercle bacilli found in the sputum. The Wassermann and Kahn tests were not made. The roentgen films of the chest showed a general involvement described as having the appearance of generalized pulmonary tuberculosis with cavities at the right apex. Death occurred two months after admission during an attack of acute cardiac insufficiency complicating pneumonia. At postmortem examination the pleural surfaces were glistening and not adherent. Just beneath and showing through the visceral layer of the pleura were numerous small nodules averaging from 1 to 3 mm. in diameter. On section these were found to be thick-walled cavities. Immediately beneath the pleura, distributed uniformly around the periphery of both lungs was a layer of fibrous tissue in which the cavities were present. The majority of the cavities communicated with the bronchial tree; others did not, and hence were true cysts. Proximal to the subpleural band-like area the lung was consolidated with a recent pneumonic exudate. The microscopic appearance of the distended bronchi is given in detail. The cells in the subpleural band-like area suggested an inflammatory reaction, a maldevelopment, or a combination of the two. The opinion is expressed that this tissue was embryonic, representing arrested development of alveolar parenchyma, and that the excessive bronchial growth was the result of an attempt to complete this connection. In the present case, there were no signs of congenital syphilis nor history of any primary or secondary lesions.—*Congenital Cyst of the Lung, H. L. Stewart, P. J. Kennedy and A. E. James, Arch. Path., November, 1932, xiv, 627.*—(*J. S. W.*)

Tuberculosis and Lymphogranulomatosis.—In 3 children with malignant lymphogranulomatosis repeated tuberculin tests were negative, although two of the children had active tuberculosis in addition to the malignant tumor. A similar tuberculin "anergy" has been reported in leukaemia and other nontuberculous lymphadenopathies.—*Recherches relatives à la tuberculose chez trois enfants atteints de lymphogranulomatose maligne, P. Nobécourt, R. Martin and R. Liège, Arch. Méd. Enf., February, 1933, xxxvi, 73.*—(*M. D.*)

Aetiology of Hodgkin's Disease.—No evidence of infection with *B. tuberculosis avis* was found in material taken from 6 accurately diagnosed cases of Hodgkin's disease. Pathological material and histological sections examined for acid-fast microörganisms gave negative results. Tissue emulsions proved to be noninfective for rabbits, guinea pigs, pigeons, and chickens on intravenous, intraperitoneal, and intramuscular administration. Likewise attempts to graft lymphadenomatous material, obtained from an acute case of Hodgkin's disease, into the bone-marrow, peritoneum, liver, and muscles of chickens have failed.—*Aetiology of Hodgkin's Disease with Special Reference to B. Tuberculosis Avis, C. E. van Rooyen, Brit. M. J., January 14, 1933, no. 3758, 50.*—(*T. O. R.*)

Pulmonary Tuberculosis and Syphilis.—Statistics are quoted showing the prevalence of syphilis in various ethnic and nosological groups. Different results are obtained with persons of different ages, districts and illnesses, and, therefore, data of hospitals and sanatoria cannot form uncriticizable comparisons. According to the statistics of Queen Elizabeth Sanatorium for the years 1927–1930, syphilitic infection was found in 9.3 per cent of the patients. Of 3,234 cases the anamnesis was positive in only 1.7 per cent. Of 1,584 men the Wassermann was positive in 9.7 per cent and of 507 women the reaction was positive in 5.7 per cent. The statistics from this institution also reveal a decrease in the proportion of syphilitic cases with positive reaction and in the morbidity of the disease. The infection was found more often in persons over the age of 40 than among younger ones. The diagnosis of latent and tertiary syphilis is difficult. In this regard serum reactions are

of overwhelming importance. An exhaustive anamnesis and thorough physical examination frequently reveal significant data. Syphilis may produce the same general symptoms as tuberculosis. The differentiation of syphilis and tuberculosis is also very difficult pathologicoanatomically and histopathologically. The question of calcification is still a controversial point. In the bronchial tree, usually in the region of the bifurcation, tertiary syphilis may cause a simple inflammation or gummatous ulcerations. The resulting cicatrization leads to stenosis. In the lungs the clinical forms of syphilis may be an acute bronchopneumonia, gumma, cirrhosis, or alterations of the lung with involvement of the pleura. From a review of the literature and from experience, decisive significance as regards the diagnosis was attributed to negative findings in the sputum, positive anamnesis, positive Wassermann reactions, and to the results of antisyphilitic treatment. In the pleura, disease in the dry or exudative form may be found in the secondary or tertiary stage. Obstinate, often recurring cases which last for years and are accompanied by great induration raise suspicions of syphilis. In the mediastinum syphilitic alterations are associated, in the majority of cases, with pulmonary or pleural syphilis but may occur independently. In the fatty and fibrous tissue gummata and marked cicatricial changes can exist. Whenever the two infections occur together the problem of differential diagnosis is very difficult. Statistical statements and clinical observation indicate that those patients with both infections develop a less favorable form of tuberculosis than the average patient. The prognosis of pulmonary and pleural syphilis is relatively favorable. However, cicatrized lesions or chronic symptoms which develop in consequence of scars and contractions cannot be influenced by medicine. With a recent syphilitic infection the prognosis depends on the general condition of the patient and the activity and extent of tuberculous involvement. The longer the intervening period between the outbreak of the two illnesses, the less harmful is the influence of syphilis on the course of the tuberculosis. Pulmonary syphilis, with which the circulatory and nervous system are involved, is apt to lead to a fatal termination. Treatment has diagnostic as well as therapeutic significance. In pulmonary syphilis energetic treatment is desirable. Persons suffering from pulmonary tuberculosis and syphilis should be treated cautiously. When there is a weakened constitution, active recent and exudative tuberculosis, treatment should be delayed, and then started preferably with bismuth. Fibrous pulmonary lesions may be treated more safely. Febrile reactions occurring during the treatment can be regarded as focal reactions. They are seen as frequently in patients with pure syphilis as in those with different forms of tuberculosis. Reactions are relatively rare in the graver cases of tuberculosis. Continuous observation of the patient is necessary to avoid disagreeable focal reactions. Iodine was prescribed in the form that least disturbed the patient's stomach as drops in milk and *gelodurat* capsules. Bismuth was used in the form of bismosalvan and casbis. Neosalvarsan was combined with bismuth. In conjunction with antisyphilitic treatment, surgical-collapse methods may be instituted for the tuberculosis.—*Pulmonary Tuberculosis and Syphilis, O. Orszagh, Tubercle, January, 1933, xiv, 145.*—(*T. O. R.*)

Syphilis and Tuberculosis.—The established therapeusis of tuberculosis and of syphilis is antithetical. The alteratives, used in dosages followed by catabolic effects, are effective in syphilis but harmful in tuberculosis. The biological changes incidental to the female sex-cycle have a corresponding contrary effect on these infections. Tuberculosis in the female is more malignant, syphilis generally more benignant, the reasons being found in the enhanced inflammatory reaction of the premenstruum. The sex liability of the tuberculous patient finds expression in the mortality curve, while the relative protection of the syphilitic female is demonstrated in the greatly lessened incidence of neurosyphilis. Fundamentally the difference in the ultimate clinical effect of the identical biological cycle lies in the ability or disability of the tissues and fluids of the body to dispose of the virus which is disseminated when premenstrual activation of localized lesions takes place.—*The Contrary Therapeutic and Sex Relationship of Syphilis and Tuberculosis, W. F. Petersen and R. Hecht, J. Am. M. Ass., July 9, 1932, xcix, 108.*—(*G. L. L.*)

Gumma of Lung.—Gumma of the lung is rarely encountered clinically. A man of 56 years complained of chills, pain in the left side, and cough. His temperature was 102.6°. He had been well until a few days previous to his present illness when he complained of "a bad cold." In forty-eight hours evidence of consolidation at the left base and axilla was found. The sputum was tenacious and slightly blood-stained. His condition did not change in the next three weeks. An exploratory needle introduced

into the chest gave negative results. The sputum was negative for tubercle bacilli. X-ray demonstrated a tumor around the region of the sixth rib. The blood Wassermann was positive. The patient responded rapidly to the administration of potassium iodide.—*Gumma of the Lung with Unusual Mode of Onset, V. P. Norman, Brit. M. J., November 26, 1932, no. 3751, 967.*—*(T.O. R.)*

Bang's Abortion in Tuberculous Cattle.—In the past, when tuberculosis was more common in cattle, Bang's disease may have been present in tuberculous herds if not in such individual cattle. Because the search for tuberculosis did not routinely include examination of the lungs and lymph nodes in cattle with Bang's disease, only 1.4 per cent of them were proved to have tuberculosis. The present study consists of the tabulation of the results of agglutination tests made on blood from slaughtered tuberculous cattle. Of the 336 tests 87 were positive, 237 negative and 12 suspicious. That is, 25.8 per cent of the slaughtered tuberculous cattle were also infected with *Br. abortus*. In another group of tuberculin negative cattle 18.8 per cent gave positive agglutination tests.—*The Incidence of Bang Abortion Disease in Tuberculous Cattle, W. M. Thomson, J. Am. Veterin. Med. Ass., September, 1932, lxxxi (n. s. xxxiv), 348.*—*(J. F. B.)*

Paratuberculous Enteritis in Sheep.—A disease of sheep, resembling Johne's disease in cattle, has been observed in the Sacramento Valley of California. The disease is characterized by emaciation, failure to thrive, tucked-up abdomen, occasional diarrhoea, occasional fever, and marked reduction of milk secretion. Appetite is not impaired. Affected sheep survive for a long time. During gestation the symptoms are most severe and the mortality is always greatest after lambing time. Postmortem examination shows emaciation, great thickening of the walls of the large and small intestines and haemorrhagic, thickened and corrugated mucous membrane of the intestines. The mesenteric lymph nodes are enlarged and grayish. Smears made of the deep scrapings of affected areas of the intestine show great clusters of small acid-fast bacilli. The same bacilli are found in the lymph nodes. Because the disease was thought to be Johne's disease, many animals were tested with Johnin and avian tuberculin. The affected animals gave a more marked reaction to the avian tuberculin. Although this disease has been reported in sheep in Great Britain, this is the first published evidence of its presence in North America.—*Paratuberculous Enteritis in Sheep Caused by an Acid Fast Organism, J. A. Howarth, J. Am. Veterin. med. Ass., September, 1932, lxxxi (n. s. xxxiv), 383.*—*(J. F. B.)*

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